



**Advisory Announcement**  
*For Immediate Release: January 11, 2021*

**CONTACT: Aaron Dupuis**  
**Sitka Area Management Biologist**  
**aaron.dupuis@alaska.gov**  
**(907) 747-6688**

**SITKA SOUND HERRING FISHERY ANNOUNCEMENT**

The guideline harvest level (GHL) for the 2021 Sitka Sound sac roe herring fishery is **33,304 tons** of mature herring; however, based on input from processors involved with the Sitka Sound sac roe herring fishery, it is expected that the commercial harvest in 2021 will not exceed 20,000 tons. The 2021 GHL was calculated by reducing the Age Structured Analysis (ASA) derived GHL by 21%, which approximates the harvest level available if the number of age-5 fish is 75% of that projected. This precautionary approach in determining the GHL takes into account the higher than usual uncertainty in the forecasted return of the unprecedented large age class of age-5 herring.

The size of the forecasted 2021 age-5 herring cohort is unusually large and is more uncertain than other year classes due in part to the magnitude of estimated abundance and the impact of uncertainty in estimated maturity and survival. Because the department has observed the 2016-year class of herring as age-3 fish in 2019 and as age-4 fish in 2020, the overall uncertainty with the 2021 forecast is less than that of the 2020 forecast. This extremely large year class has been observed in other herring populations throughout the Gulf of Alaska in 2019 and 2020.

The 2021 ASA forecast of mature herring biomass is 210,453 tons of mature herring. The 2021 forecast is the second largest for Sitka Sound herring and is 16% smaller than the 2020 mature biomass estimate of 250,468 tons.

The forecast indicates that the mature population by number of herring in 2021 will consist of 2% age-3, <1% age-4, 86% age-5, 5% age-6, 3% age-7, and 4% age-8+. Because there was no commercial harvest in 2019 and 2020, the forecast used an average of the spring commercial purse seine weights at age from the 2017 and 2018 fisheries harvest: age-3, 79 grams; age-4, 92 grams; age-5, 109 grams; age-6, 126 grams; age-7, 144 grams; and age-8+, 165 grams. The forecasted average weight across all age classes is 112 grams.

To forecast biomass, the department uses an ASA model with a long time series of egg abundance and age composition data from department surveys conducted during and following the spring fishery. Herring egg abundance is estimated using aerial surveys, designed to map the length of shoreline receiving spawn, and dive surveys, which are used to estimate the density of eggs and average width of the spawn. The department mapped 58.5 nautical miles (nmi) of herring spawn in the Sitka Sound area during the spring of 2020, compared to the recent 10-year average of 60.6 nmi. Egg deposition in 2020 was the highest on record since 1976 and was nearly three times the 2019 estimate, due in part to the increasing maturity of the 2016-year class. A large proportion of the eggs were observed along the southern and outer shores of Kruzof Island but, unlike 2018 and 2019, eggs were also spawned along the Sitka road system and among nearby islands. Estimated age composition by number of spawning herring in 2020 was <1% age-3, 88% age-4, 5% age-5, 3% age-6, <1% age-7, and 4% age-8+.

Advisory Announcement web site: <http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main>.

Office	Ketchikan	Petersburg	Wrangell	Sitka	Juneau	Haines	Yakutat
ADF&G	225-5195	772-3801		747-6688	465-4250	766-2830	784-3255
AWT	225-5111	772-3983	874-3215	747-3254	465-4000	766-2533	784-3220